

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 043890-0700
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on _____</p> <p>Signature _____</p> <p>Typed or Printed Name _____</p>		Application Number 10/511,749 Filed October 19, 2004 First Named Inventor Daisuke ADACHI Art Unit 1795 Examiner RAYMOND, Brittany L.
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>		
<p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number 57,630</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34</p>		 Signature Eric M. Shelton Typed or printed name 202.756.8000 Telephone number June 23, 2010 Date
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>		



*Total of 1 forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Customer Number: 53080
Daisuke ADACHI : Confirmation Number: 4951
Application No.: 10/511,749 : Group Art Unit: 1795
Filed: October 19, 2004 : Examiner: RAYMOND, Brittany L.
For: PLASMA DISPLAY PANEL MANUFACTURING METHOD

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to United States Patent and Trademark Office OG Notices: 12 July 2005 - New Pre-Appeal Brief Conference Pilot Program, a request for a review of identified matters on appeal is hereby submitted with the Notice of Appeal. Review of these identified matters by a panel of Examiners is requested because the rejections of record are clearly not proper and are without basis, in view of a clear legal or factual deficiency in the rejections. All rights to address additional matters on appeal in any subsequent appeal brief are hereby reserved.

Claims 1, 2, 8, and 9 are pending in this application, with claims 1 and 2 being independent. Claims 1, 2, 8, and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,008,166 (Aoki) in view of U.S. Patent App. Pub. No. 2003/0215747 (Kim).

Applicant respectfully traverses the rejections of claims 1, 2, 8, and 9 for at least the following reasons.

REMARKS

Applicant respectfully requests reconsideration and withdrawal of the rejections of claims 1 and 2 because the cited art does not render the claimed subject matter obvious.

Aoki

Aoki discloses moving a photomask between first and second exposures as follows:

First Embodiment: “according to the . . . embodiment, photomask 20 is either moved from first to second positions in the direction in which signal electrodes 15 extend, or in a direction perpendicular to that.” This is done “without complicating the manufacturing process.” Col. 7, lines 40-51; see also col. 8, lines 37-41.

- (1) “[I]n the longitudinal direction” of the electrodes by a distance “larger than any dust that is expected to adhere to photomask 20” (col. 6, lines 20-32). *See FIGS. 6A to 7.* “[A]fter the second exposure, photomask 20 can be moved again in the direction of the stripes, and then a third exposure can be performed” (col. 7, lines 15-17). “It is desirable that the portions that have been irradiated once are outside the display area” (col. 7, lines 25-26).
- (2) “[B]y three pitches (3P) in the direction orthogonal to the . . . stripes” (col. 7, lines 28-34). *See FIG. 8.* “The light transmitting portions 20a of photomask 20 are arranged at pitches each three times the pitch P” (col. 6, lines 10-12).
- (3) “As an alternative, it may be moved in the stripe-extending direction and across the stripe pattern” (col. 8, lines 43-44) (*NOTE:* there is no “stripe-extending direction” for the second embodiment). In other words, performing both (1) and (2) between the first and second exposures.

Second Embodiment: The mosaic pattern filter shown in FIG. 10, in which “trios” of red, green, and blue filter elements are “arranged contiguously” (col. 8, lines 23-36). Movement is performed “so that the filter element patterns are overlapped” (col. 8, lines 41-43).

- (4) “moved horizontally . . . for a distance of three horizontal pitches ($P_1 \times 3$) of the horizontal array of the color filter elements” (col. 8, lines 28-32)
- (5) “moved both vertically and horizontally . . . , it is moved horizontally by $1 \times \frac{1}{2}$ pitches ($P_1 \times 1\frac{1}{2}$) horizontally, and vertically for one pitch (P_1') of the vertical array of color filter elements” (col. 8, lines 32-36).

Aoki provides no clear explanation as to how the photomask might be “moved a distance three times the pitch of the vertical array of filter elements, across the stripe pattern” (col. 8, lines 44-

47), as there is no “vertical array” in the first embodiment, nor is there a “stripe pattern” in the second embodiment.

Aoki, col. 8, lines 48-49 discuss where “some of the corresponding filter elements are overlapped for exposure” (*emphasis added*). Aoki, FIG. 8 shows an instance in which some, but not all, filter elements are overlapped. In FIG. 8, the rightmost light transmitting portion 20a of photomask 20 performs a second exposure that does not have a overlapping first exposure, as shown by the rightmost rectangle labeled 20a and shown with “two-dot-chain lines.”

Claim 1

Independent claim 1 recites, *inter alia*,

... each of the structures extends primarily in a lengthwise direction and has a width w in a widthwise direction orthogonal to the lengthwise direction, and a photomask and the photosensitive material are moved in the widthwise direction relative to each other by a distance less than w between the first and second exposures.

Aoki does not disclose, expressly or inherently, the recited movement “in the widthwise direction . . . by a distance less than w.” Each of items (2), (4), and (5) performs a movement that results in fully overlapping first and second exposure patterns. Although items (1) and (3) above relate to movement “larger than any dust that is expected to adhere to photomask 20,” they expressly disclose that the movement is “in the longitudinal direction of [the] electrodes” (col. 6, lines 21-22), “in the direction of the stripes” (col. 7, lines 16-17), and “in the direction in which signal electrodes 15 extend” (col. 7, lines 42-43). Thus, none of items (1)-(5) above disclose the recited movement “in the widthwise direction . . . by a distance less than w,” and this remains a gap between Aoki and independent claim 1.

Bridging this gap would not have been obvious in view of the cited art. As noted above, item (1) expressly describes movement is “in the direction in which signal electrodes 15 extend,” which corresponds to the “lengthwise direction” of claim 1. Aoki is specific as to which direction the movement is acceptable, and urges away from movement in the widthwise

direction, cautioning that “[i]t is desirable that the portions that have been irradiated once are outside the display area” (col. 7, lines 25-26). If a widthwise movement smaller than 3P were performed in the widthwise direction, it would result in (a) significant portions irradiated only once within the display area, and/or (b) undesirable overlap between electrodes of different colors (e.g., 15R and 15G). Thus, particularly in a display panel in which “each of the structures extends primarily in a lengthwise direction,” as recited in claim 1, it would not have been obvious to one skilled in the art to perform the recited movement “in the widthwise direction . . . by a distance less than w.” Kim does not bridge the above gap between claim 1 and Aoki.

Claim 2

Independent claim 2 recites, *inter alia*,

... exposure parts of a photomask for forming the electrodes are disposed periodically with a pitch p, and a photomask and the photosensitive material are moved relative to each other by two or more integral times the distance p between the first and second exposures.

Aoki does not disclose, expressly or inherently, the above limitations. As noted above with respect to item (2), Aoki discloses that “[t]he light transmitting portions 20a of photomask 20 are arranged at pitches each three times the pitch P” (col. 6, lines 10-12), and discloses movement by the same distance – “three pitches (3P) in the direction orthogonal to the . . . stripes” (col. 7, lines 28-34). *See FIG. 8.* Even with respect to items (4) and (5) above, the disclosed distances are only one time the periodicities created by the “trio” tessellation. The Office Action notes Aoki’s statement that “the photomask may be moved in any way” (col. 8, lines 47-48), but this simply notes the applicability of overlapping exposures to various filter arrangements, as shown in items (1)-(5). It does not disclose movements in any and all distances and/or directions, even where exposures overlap, as the Office Action appears to suggest.

Bridging this gap would not have been obvious in view of the cited art. Page 5 of the Office Action concludes that “the photomask could be moved any distance” and “could be

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moved down the substrate by a few sets of the filter elements" (*emphasis added*). However, *prima facie* obviousness is not established by mere statements of capability identifying what could have been done, but instead requires a demonstration that would of skill in the art actually would have sought to modify the express teachings of Aoki to yield what is recited in claim 2. Without such a demonstration, the Office Action fails to provide the requisite "substantial evidence" for a finding of obviousness by the Patent Office. Kim does not bridge the above gap between claim 2 and Aoki.

Conclusion

For at least the foregoing reasons, Applicant respectfully requests reconsideration and withdrawal of the rejections of independent claims 1 and 2. Claims 8 and 9 depend from claims 1 and 2. Therefore, for at least the reasons presented above with respect to claims 1 and 2, Applicant also respectfully requests withdrawal of the rejections of claims 8 and 9.

Based on the foregoing, it is respectfully submitted that claims 1, 2, 8, and 9 are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under Section 103(a) be withdrawn.

Respectfully submitted,

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